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**Science Advisory Council to the Environmental Management Commission Meeting**  
**Building 1805**  
**Camp Edwards, Massachusetts**  
**April 6, 2011**  
**5:30 p.m.**

**Meeting Minutes**

<b><u>Members:</u></b>	<b><u>Organization:</u></b>	<b><u>Telephone:</u></b>	<b><u>E-Mail:</u></b>
Dr. Paul Cavanagh	SAC	508-224-6521	conservationscientist@yahoo.com
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Tara Nye	SAC	508-428-0469	tnye@apcc.org
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Bob Miles	SAC	508 362 7426	<a href="mailto:Boblmiles@comcast.net">Boblmiles@comcast.net</a>
Dr. John Duggan	SAC	617-989-4181	dugganj@wit.edu

  

<b><u>Environmental Officer:</u></b>	<b><u>Organization:</u></b>	<b><u>Telephone:</u></b>	<b><u>E-Mail:</u></b>
Mark Begley, Executive Director	EMC	508-968-5127	mark.begley@state.ma.us

  

<b><u>Attendees:</u></b>	<b><u>Organization:</u></b>	<b><u>Telephone:</u></b>	<b><u>E-Mail:</u></b>
COL Richard Crivello	MA ARNG	508-968-5885	Richard.crivello@us.army.mil
LTC Arthur Elbthal	MA ARNG	508-968-6559	Arthur.elbthal@us.army.mil
LTC Mike Speth	NGB	508-968-5936	Mike.speth@us.army.mil
Stephen Mellin	6SWS	508-968-3213	Stephen.mellin@capecod.af.mil
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Dr. Mike Ciaranca	E&RC	508-968-5121	Michael.ciaranca@us.army.mil
John Kelly	E&RC	508-968-5848	John.kelly19@us.army.mil
Bill Sullivan	E&RC	508-968-5147	William.g.sullivan@us.army.mil
Andrew Campbell	Bourne Water District	508-563-2294	BourneH20@aol.com
Leo Yuskus	Haley & Ward	781-890-3980	lyuskus@haleyward.com
John O'Brien	Haley & Ward	781-890-3980	jobrien@haleyward.com

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## Handouts Distributed at Meeting:

1. Draft SAC Meeting Minutes for August 25, 2010
2. Cape Cod Air Force Station Wind Turbines
3. Developing a Drinking Water Supply on the MMR for the Bourne Water District
4. Environmental and Readiness Update
5. Camp Edwards Future Planning Update Brief
6. Soldier Validation Lane

### **Agenda Item #1. Welcome and Chairperson's Comments – Dr. Paul Cavanagh, SAC Chairperson**

Science Advisory Council (SAC) Chair Dr. Cavanagh welcomed everyone and thanked them for coming. He noted that Mr. Alan Peterson, who was a valued member of the SAC, passed away.

### **Agenda Item #2: Review of SAC Meeting Minutes**

The minutes from the August 25, 2010 SAC meeting were reviewed. Dr. Cavanagh made corrections to the spelling of his last name on page 5. On page 21 last paragraph capitalize "Mountains" and lowercase "mass kills." On page 22 2<sup>nd</sup> paragraph last sentence instead of "he said" change to "Dr. Petron said." Dr. Cavanagh made a motion to approve the August 25, 2010 SAC minutes with corrections; Dr. Duggan seconded the motion, and the minutes were approved unanimously.

### **Agenda Item #3: Proposed PAVE PAWS Wind Turbines – Stephen Mellin, Support Officer, Cape Cod Air Force Station**

Mr. Mellin said that Air Force Space Command plans to construct two wind turbines to support Cape Cod Air Force Station (AFS). He explained that Cape Cod AFS uses about 13,000,000 KWH of electricity annually/ spending about \$5,000 per day at current prices. Executive Orders 13423 and 13514, established goals and requirements on Federal energy consumption including generating renewable energy on Federal property and reducing greenhouse gas emissions.

Analysis showed that installing two turbines could offset Cape Cod AFS energy consumption by 50%. Most of the initial investigation and analysis was already completed for the wind turbines under construction by the Air Force Center for Engineering and the Environment. After reviewing siting constraints for the turbines, only one turbine could be installed on Cape Cod AFS proper, the second turbine would have to be installed on adjacent land. Air Force Space Command (AFSPC) worked with Camp Edwards staff to locate a turbine close to Cape Cod AFS that would not interfere with training plans and minimize disruption to the post.

Mr. Mellin displayed photos of siting constraints and proposed site locations: Site 1 within the PAVE PAWS property area and Site 2 at Battle Position (BP) -18, which is in the B-12 training area. Mr. Mellin said that that the current status is finalizing siting actions with Camp Edwards staff including determining proper real estate documentation. He noted that Cape Cod AFS was originally working towards FY 12 funding for this project; however there is a chance that FY 11 funds will become available.

Mr. Mellin stated that AFCEE completed an Environmental Assessment for the installation of their turbines resulting in a Finding of No Significant Impact. The AFSPC turbines qualify for a Categorical Exclusion (CATEX) since similar work has already been reviewed. All restrictions placed on AFCEE's turbines will also apply to AFSPC (for example, bird/bat monitoring).

Mr. Gshwend asked if there are any herbicides used to prepare the sites. Mr. Mellin replied that there are none that he is aware of. Mr. Gshwend asked if there was discussion of the use of herbicides to install the turbines. Mr. Begley stated that he inquired about the use of herbicides and they said they are not going to use herbicides there.

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SAC members discussed what is contained in the dielectric fluid used to lubricate the turbines. Mr. Mellin was unsure of what the fluid was made as the turbine design has not been done yet and noted that secondary containment is required. Mr. Mellin said that he will research what may be in the dielectric fluid. Dr. Duggan said that dielectric fluid was discussed during a previous SAC meeting, where Rose Forbes, from AFCEE, explained that the fluid used is biodegradable and a non-regulated material. Mr. Begley pointed out that although something is biodegradable, it doesn't mean its "fine" and said one concern he has raised is that secondary containment should be planned no matter what is used. Mr. Begley said CCAFS plans to implement secondary containment for the nacelle.

Dr. Cavanagh stated that Mr. Begley will ask Rose Forbes, AFCEE, for additional information and provide the information via email to Mr. Gshwend about the dielectric fluid constituents.

Ms. Nye asked about the MEPA (Massachusetts Environmental Policy Act). Mr. Mellin replied that it is a Federal entity and he understands that MEPA is not required.

Mr. Begley stated that Mr. Mellin is correct that the wind turbine project does not cross the MEPA thresholds, however, there is still debate whether you would have to file or not if the thresholds were exceeded.

**Agenda Item 4: Bourne Water District, Proposed Water Supply Well – Andrew Campbell, Superintendent, Bourne Water District**

Mr. Campbell, Superintendent, Bourne Water District, introduced Leo Yuskus, Senior Vice President at Haley and Ward, who has worked with the Bourne Water District for twenty years. Mr. Yuskus explained that Well Site (WS) 4, which was part of the initial water supply investigation by the Water Cooperative, is located between Route 28 and Frank Perkins Road. The site is 1,200 to 1,500 feet from Route 28. This site was determined to be the most appropriate site for developing a new water supply. The Impact Area Groundwater Study Program (IAGWSP) conducted a groundwater quality investigation and assured satisfactory drinking water quality at WS-4. The district received contingent approval as a water supply from the Massachusetts Department of Environmental Protection (MassDEP).

Mr. Yuskus stated that developing WS-4 will increase reliability of the supply system and will ensure adequate supply in event of an emergency. Development of the site will also allow for flexibility in water management practices and allow withdrawals to be spread out so that areas are not over pumped. It will also meet present and future water demand.

Mr. Yuskus said that the project will include a deep gravel pack well, 16" x 22" x 227'. A submersible pump with pumping capacity of 800 gpm will be installed. The groundwater is 65-73 feet below the ground level. He said there is presently a 50-foot easement off of Route 28

Mr. Yuskus explained that for the Bourne Water District to construct the well the area required for a license or lease is 160 x 270 feet, which is the minimum area necessary to construct the well. Mr. Yuskus said that because of the MMR Groundwater Protection Policy, MassDEP will be satisfied with the minimum area of 160' x 270'. At this time Bourne Water District is negotiating with the various agencies to either obtain a license or preferably a lease.

Mr. Yuskus stated that the Natural Heritage Endangered Species Program (NHESP) has determined "No Take" and the NEPA and MEPA processes have been completed.

Mr. Yuskus stated that the LP gas fuel will be utilized and there are three chemicals used: sodium hydroxide, potassium hydroxide, and hydrated lime corrosion control product.

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Mr. Yuskus stated that the design is in the final stages and discussions are ongoing with the Division of Fisheries and Wildlife and the Corps of Engineers for a license/lease. Final approval is through MassDEP, which will be contingent upon the Bourne Water District acquiring a license or lease.

Mr. Miles asked about the 800 gallon capacity and how the capacity fits into the Bourne Water District need. Mr. Campbell replied that the WS-4 will be used in conjunction with the other wells and will reduce the time that the Water District will use the other wells. Mr. Yuskus stated that with regulatory controls MassDEP will not allow pumping over 800 gallons a minute.

The SAC discussed surface water monitoring and the potential to monitor Succonsett Pond. There is safety and operational considerations that must be taken into account and COL Crivello said that the Guard “would do everything it has to do to get access to the pond and obtain the data needed.” Mr. Miles asked who would be doing the monitoring. Mr. Campbell replied that Bourne Water District will be doing the monitoring. Mr. Miles asked what if it impacts the pond. Mr. Campbell said that how much water was being pulled out of the station would then be assessed. He said if there was monitoring for potential impact it would be in writing.

Dr. Cavanagh said that he will review Chapter 47 and the Bourne Water District’s presentation to see if any concerns arise related to the Environmental Performance Standards and how they apply to all users.

Mr. Begley stated that there could be a letter from the EMC that is part of the consistency with Chapter 47 and the EPSs. Mr. Begley said that the applicability of the EPSs came up in the MEPA process, and there really is no question that they apply to the Military and other users of the Reserve and the Bourne Water District would be considered a user of the Reserve. There is a tremendous amount of fluctuation in the groundwater table in the Reserve, so the information would have to be reviewed carefully, along with the USGS wells because there would be at least two things going on--precipitation and draw down due to pumping. The question is how to best review that and present that information in the Annual Report or another document to communicate that information over time.

Mr. Campbell asked if the shallow pond is lowering because of climatic issues rather than by pumping how are those issues separated. Mr. Begley said that the USGS wells are outside the Zone II and fluctuations in those wells can be looked at.

Dr. Duggan asked if any disinfectant will be stored on site as part of the emergency chlorination station. Mr. Campbell said no; if the well became contaminated it would be brought in.

#### **Agenda Item 5: Massachusetts Army National Guard Updates**

##### **a. General – Dr. Ciaranca, Deputy Director, E&RC**

Dr. Ciaranca discussed programmatic changes including the installation of a new Camp Edwards Commander, COL Richard Crivello, the transition of the Environmental & Readiness Center (E&RC) staff to state employment, and staff changes. Dr. Ciaranca noted that the 2010 State of the Reservation Report is complete and available at [www.EandRC.org](http://www.EandRC.org). Comments and suggestions for next year’s report are due by April 15 and should be submitted to Mr. Begley, Mr. William Sullivan, E&RC, or Dr. Ciaranca.

Dr. Ciaranca stated that the Massachusetts Military Reservation commanders gave briefings to Boards of Selectmen of the four Upper Cape towns. They also provided a brief to the Cape Cod Commission. He said that the Military Civilian Community Council (MC3) for the Cantonment area has not met in over a year and is being reformed with new members to include Ms. McConnell from the Community Advisory Council (CAC).

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Mr. Kelly, natural resources manager, reported on the fall 2010 deer hunt activity and said that the turkey hunt is scheduled in May 2011. A youth hunt is scheduled for April 23. Mr. Kelly reported that the Guard is working in partnership with the MA Department of Fish and Wildlife (DFW) and the US Fish and Wildlife Service (FWS) to burn 500 acres inside and outside of the Impact Area as part of the New England Cottontail Grant and Partnership. Conducting prescribed fire in the Impact Area is critical to producing habitat that benefits the New England Cottontail population.

Dr. Ciaranca said that MAARNG reported a notice of violation of EPS 17.1 resulting from an incident during the Open House in October 2010. WWII era tanks left the main roads and trails in training area BA-3 directly north of Tactical Training Base (TTB) Kelly. Corrective actions completed through Camp Edwards Range Control, Facilities Engineers, and the ITAM Program and coordination with Mr. Begley.

Dr. Ciaranca reported that a dump site was discovered (September 2010), where “Asphalt” like product was dumped at the site on Camp Edwards boundary with Mass Highway and NStar at Route. 6A. the cost to remediate was \$60,000. The SAC discussed trespassing on the base—it is a safety issue. Mr. Begley said that not only do the Environmental Police need to enforce the trespassing laws since it’s a military base, but perhaps work with Range Control or Force Protection to establish the “belt and surrender” approach. Dr. Ciaranca said that Range Control does patrol the base.

Mr. Begley noted that the pilot period for the Ultimate Training Munitions (UTM) and FX Marking Round expired September 16, 2010. Progress reports were submitted, and on November 16, 2010, the MAARNG requested that the EMC support the permanent inclusion of UTM and FX Marking Round on the approved munitions list for Camp Edwards. Mr. Begley said that he would recommend at the next EMC meeting that the munitions be included on the approved munitions list.

Dr. Ciaranca provided an update on the Small Arms Ranges. Site drainage work has been conducted at Juliet and Kilo ranges and lysimeters have been installed; in addition, the lysimeters have been reconfigured on Tango Range.

Dr. Ciaranca then discussed Sierra range, which is required to qualify soldiers prior to deployment. There is a plan to work through the complex range on how to come up with the best management practices to avoid depositing lead in the environment or any other concerns regarding pollution prevention ultimately the protection of groundwater. There was a SAR P2 Plan in 2007 for the ranges addressing each range and general BMP practices for those ranges and overall. Part of the administrative orders of EPA is to research all to the maximum extent possible containment systems structures facilities within going back to firing lead not on a specific range.

Dr. Ciaranca stated that the Sierra Range Draft Alternative Analysis was submitted to the Small Arms Range Working Group, comprising EPA, MassDEP, MANG, and IAGWSP. A Line of Site Analysis (LOS) was provided to the group. The LOS was developed to learn where the bullets land, whether they impact the range floor and if they can be recovered. A live fire demonstration was held which appeared to prove out the LOS. Out of 90 targets, the Guard believes that 17 will need auxiliary berms to preclude bullets from hitting the range floor.

Dr. Ciaranca said that the second draft of the LOS analysis is being reviewed by the SARWG. Once the LOS is complete it will go into the alternative analysis, and then the Supplemental Environmental Impact Report will be completed with MEPA.

Dr. Ciaranca stated that alternative ammunition (copper) is being reviewed.

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Mr. Begley stated that the quality of work done at Camp Edwards should be presented at a conference like one of the sustainable range conferences.

*b. Planning – COL Richard Crivello, Camp Edwards Post Commander*

COL Crivello discussed future planning at the MMR and discussed the four major commands at MMR and the inter-agency cooperation that is necessary to run the base. He explained that a future vision is being developed for the MMR to support current and future missions. COL Crivello discussed the current pre-mobilization training at Camp Edwards and the current DOD mobilization policy in place for Reserve components. He also explained Camp Edwards utilization numbers over the last five years as well as sustainable training.

COL Crivello explained recent and future projects that are planned for Camp Edwards and operational impacts to Camp Edwards and the MMR including consolidating and modernizing facilities to meet mission requirements and the reduced operating footprint at Otis ANGB. The Guard is looking at ways to reduce operating costs and identifying opportunities to partner with other agencies where appropriate.

COL Crivello discussed the Strategic Planning program and said that it's a comprehensive planning process identifying base-wide, long range goals and development proposals in partnership with the community and is an amalgamation of other strategic plans and goals. He reviewed the planning background at the MMR over the last 10 years including the Community Working Group master plan and the Guard's Final Environmental Impact Report along with information on the Military Civilian Community Council which was created to establish a mutually beneficial process to ensure timely and consistent notification between the military and civilian tenants of the MMR and the local and regional communities and organizations on projects, policies and activities.

COL Crivello explained that the strategic planning initiative will have two phases: the first phase will take place over the next year when specific service component plans are updated and developed. The second phase will be a comprehensive vision for the future of the MMR

Mr. Gshwend stated that when environmental considerations are taken at an early stage, the proponents end up being ahead rather than waiting until after a plan is developed and discussing the environmental considerations.

COL Crivello agreed 100%. He said that the environmental aspect is one of the first considerations. Mr. Gshwend replied that if the Guard is going after a new type of bullet, it should be talked about ahead of time, instead of after the Guard gets the bullet.

Dr. Cavanagh said that the Guard seems to be using different approach from 10 years ago; now they have an idea of what the next generation of training will be and are actively pursuing the types of facilities required for that training. He asked if there's a timeframe for when DoD has said they anticipate these facilities. COL Crivello replied that a lot of it is based on doctrine and available funding. He explained that right now the need is immediate so the Guard has to think beyond the normal process and try to find things that can be done quickly in order to be able to provide those venues that the soldiers need now--not six or seven years down the road. Dr. Cavanagh said that although we are not going to know beyond six years, there is a need to plan for the next six years in a comprehensive approach. Comments made on the State of the Reservation Report over the past two years have been asking to head in this direction so he appreciates the direction it is going.

**Agenda Item #6. Proposed Soldier Validation Lane – Dr. Mike Ciaranca, Deputy Director, E&RC**

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Dr. Ciaranca said that the Soldier Validation Lane (SVL) is an XCTC-like training that will allow up to 150 soldiers train. The SVL will improve and sustain training capability at Camp Edwards by providing collective training capability with Cordon and Search Training and improvised explosive device (IED) training.

Dr. Ciaranca stated that the SVL is made up of Connex containers, which are reconfigurable and portable structures with an extremely high and fresh training value. Criteria have been developed for placement of the Connex containers in the Reserve. The Guard developed an SVL container placement check list, and placement of containers will be coordinated with the Environmental Management Commission (EMC) in regards to Chapter 47 and with the Environmental Protection Agency (EPA) Region 1 in regards to the Administrative Orders (AOs). There will be no new site clearing, no new roads, and no permanent concrete foundations.

Dr. Ciaranca said that 150 containers maximum would be placed in the Camp Edwards training area, using previously disturbed areas.

Dr. Ciaranca explained that targetry at the SVL locations will be radio controlled, battery powered, solar charged and MILES-compatible.

LTC Elbthal, training Commander JFHQ MA Guard, said that the targets will be movable; through reviewing the EPSs and minimizing disturbances a better targetry system is improved more mobile, more adaptable. SVL has taken the best training concepts and challenged reality based training while meeting or exceeding established environmental standards and maintaining collective integrity. The number of scenarios that can be designed with mobile containers and mobile targets is almost limitless and can be continuously adapted to theatre as opposed to one, fixed facility.

Dr. Ciaranca discussed the SVL process including the environmental review and MEPA process.

Mr. Gshwend asked if the batteries will be recycled. COL Crivello replied that the batteries are recyclable and when they are used in the training area there will be secondary containment. Mr. Gshwend stated that he agrees with the concept he would like to be informed ahead of time of any new devices. COL Crivello stated that the batteries will be removed out of the training area once the event has been completed.

#### **Agenda Item #7. Public Comment**

Dr. Cavanagh suggested a discussion at a later date on public involvement. Dr. Cavanagh said he recognizes the effort that goes into having the meetings and there isn't necessarily the return with investment of time. He said a future agenda item may be thoughts about additional connection with the public. COL Crivello asked if there would be a better place to have the meeting for the public to recommend. Mr. Begley stated that there were not a lot of public in attendance when the meetings were held off base. Dr. Ciaranca noted that there have been flyers sent to homes in the past with then limited attendance at the meetings.

Mr. Begley stated that that the MEPA comment period is open through April 26, 2011

#### **Agenda Item #8. Other Business**

There was no other business.

#### **Agenda Item #10. Adjourn**

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The meeting was adjourned at 8:20 p.m.